

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1- 26 (canceled)

Claim 27 (currently amended): A hydrogen occluding material in a form of a fine powder capable of hydrogenation and/or dehydrogenation of hydrogen molecules or hydrogen atoms at about 200°C or below and under adequate control of pressure, said hydrogen occluding material comprising:

an aluminum hydride having a formula (1)



where $0 \leq x \leq 3$; and

a dopant functioning as a catalyst, wherein the dopant includes at least one species selected from the group consisting of transition metals belonging to groups III to V of the periodic table, chromium, iron and nickel and alkali metals, and at least one species selected from the group consisting of alkali metals, and compounds thereof, and wherein an amount of the dopant ranges from about 0.2 mol% to about 10 mol% of an amount of the aluminum hydride, wherein the aluminum hydride has a hydrogen capacity greater than an alanate, and wherein the hydrogen occluding material is capable of releasing a greater amount of hydrogen gas in one stage at a lower temperature ~~in the absence of mechanical treatment in an inert environment as compared to the alanate.~~

Claim 28 (currently amended): A method for using a hydrogen occluding material in a form of a fine powder, the method comprising hydrogenating and/or dehydrogenating hydrogen molecules or atoms at about 200°C or below and under adequate control of pressure a hydrogen occluding material composed of:

an aluminum hydride having a formula (1)



where $0 \leq x \leq 3$; and

a dopant functioning as a catalyst, wherein the dopant includes at least one species selected from the group consisting of transition metals belonging to groups III to V of the periodic table, chromium, iron and nickel and alkali metals, and at least one species selected from the group consisting of alkali metals, and compounds thereof, and wherein an amount of the dopant ranges from about 0.2 mol% to about 10 mol% of an amount of the aluminum hydride, wherein the aluminum hydride has a hydrogen capacity greater than an alanate, and wherein the hydrogen occluding material is capable of releasing a greater amount of hydrogen gas in one stage at a lower temperature ~~in the absence of mechanical treatment in an inert environment~~ as compared to the alanate.

Claim 29-32 (cancelled)

Claim 33 (new): The hydrogen occluding material according to claim 27, wherein the at least one species selected from the group consisting of alkali metals is sodium.

Claim 34 (new): The method for using a hydrogen occluding material according to claim 28, wherein the at least one species selected from the group consisting of alkali metals is sodium.

Claim 35 (new): The hydrogen occluding material according to claim 27, wherein the at least one species selected from the group consisting of transition metals belonging to groups III to V of the periodic table is titanium.

Claim 36 (new): The method for using a hydrogen occluding material according to claim 28, wherein the at least one species selected from the group consisting of transition metals belonging to groups III to V of the periodic table is titanium.

Claim 37 (new): The hydrogen occluding material according to claim 27, wherein the at least one species selected from the group consisting of transition metals belonging to groups III to V of the periodic table is titanium and the at least one species selected from the group consisting of alkali metals is sodium.

Claim 38 (new): The method for using a hydrogen occluding material according to claim 28, wherein the at least one species selected from the group consisting of transition metals belonging to groups III to V of the periodic table is titanium and the at least one species selected from the group consisting of alkali metals is sodium.